

## Workflow management in DIRAC interware

*Friday, 5 April 2019 11:50 (30 minutes)*

DIRAC interware is a layer between users communities and computing infrastructures. Scientific communities of different domains (high energy physics, astrophysics and biomedical) adopted DIRAC as workload and data management system in a distributed computing environment, mainly grids and clouds. The DIRAC Workload Management System handles the whole job life cycle, allowing an efficient usage of distributed and heterogeneous resources through the pilot mechanism.

Moreover, the DIRAC Transformation System is dedicated to the management of large productions, i.e. several hundreds of thousands jobs, processing large amounts of data, through a data-driven mechanism.

However, scientific workflows are usually composed of several processing steps that are treated independently by the Transformation System.

In order to automatize the execution of whole workflows, we have developed a high-level fully data-driven DIRAC system, called Production System. In this contribution we describe the Production System architecture as well as its first application to the Monte Carlo productions of the Cherenkov Telescope Array.

**Primary authors:** Dr TSAREGORODTSEV, Andrei (CPPM-IN2P3-CNRS); HERNANDEZ, Fabio (CC-IN2P3/CNRS France); BREGEON, Johan (LUPM IN2P3/CNRS France); GAY, Pierre (Université de Bordeaux France); POP, Sorina (CREATIS/CNRS France); HAMAR, Vanessa (CC-IN2P3/CNRS France); ARRABITO, luisa (LUPM IN2P3/CNRS)

**Presenters:** Dr TSAREGORODTSEV, Andrei (CPPM-IN2P3-CNRS); ARRABITO, luisa (LUPM IN2P3/CNRS)

**Session Classification:** VRE

**Track Classification:** Virtual Reserach Environment (including Middleware, tools, services, workflow, ... etc.)